furnishes evidence that the Y-chromosome type of inheritance occurs in man as well as in fishes.

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THE VOCABULARY OF METABOLISM

I wish to suggest in the columns of SCIENCE the following new terms in the vocabulary of metabolism: (1) *Eubolism,* a condition of normal bodily metabolism; (2) *Pathobolism,* a condition of perverted metabolism of a diseased nature, as, for example, diabetes; (3) *Dysbolism,* a condition of disturbed metabolism not necessarily of a diseased nature, as, for example, alkaptonuria. I believe that these terms will supply a want in the terminology of metabolism.

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SALARIES OF PROFESSORS IN POLAND

I TAKE the following item from the weekly news release of June 7 of the Polish Bureau of Information:

Because of the importance attached to their rôle in the life of the nation, the university professors of Poland have been granted salaries greater than those to which their official rank would entitle them. [The official rank of full professors in Polish universities is considered equivalent to that of major generals.]

If they have been in service fifteen years and are supporting families, they are to receive monthly salaries of 139,000 marks. This approximates the salaries of cabinet ministers, who receive about 160,000 marks monthly, and is slightly in excess of those of vice-ministers, who receive, including representation funds, about 137,000 marks.

These salaries for professors have been made possible by a special provision in the state budget, appropriating 357,906,966 marks for professors' salaries and 87,625,761 marks for the salaries of assistants, a total of nearly half a billion marks. [For the value of a Polish mark in American money to-day, consult the morning newspaper.]

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SPECIAL ARTICLES

THE SPIRAL TREND OF INTESTINAL MUSCLE FIBERS

IN the *Anatomical Record* for May, 1921 (Vol. 21, pp. 189-215), Professor Carey published his "Studies on the Structure and Function of the Small Intestine." These were reprinted, in part, with the title, "Studies on the Anatomy and Muscular Action of the Small Intestine," as the opening article of volume 1 of the *Journal of Gastro-Enterology* (July, 1921). The first conclusion, and the only one on which comment is here to be made, is this:

> The inner muscle coat of the small intestine is not composed of circular or annular rings contiguously placed, but is a continuous muscular sheet wound into a close helix. One complete turn is made in every 0.5 to 1 mm. or less (*Anat. Rec.*, p. 193; *Journ. Gastro-Ent.*, p. 9).

Professor Carey characterizes the conception that the inner muscular coat is composed of discrete muscular rings with a certain degree of connection, as "a faulty anatomical heirloom"—an "erroneous idea which arose with the inception of the microscope and has since been accepted unchallenged." There is, however, a neglected anatomical heirloom, with which perhaps the author was unfamiliar, in the form of "A Discourse concerning the Spiral, instead of the supposed Annular, structure of the Fibres of the Intestins; discover'd and shewn by the Learn'd and Inquisitive Dr. William Cole to the Royal Society" (*Phil. Trans.*, 1676, Vol. xi, pp. 603-609). This discourse, not now readily accessible, is so admirably confirmed by Professor Carey's repetition of the work as to repay examination.

At the time of Dr. Cole's studies, Willis, in his *Pharmaceutice rationalis,* published two years previously, had described the interior fibers of the muscular coat as "annular, everywhere girdling in close-set ranks the cavity of the intestines, and inserted into the edge of the mesentery as in a tendon." Overlying these, and "crossing them at right angles," he found straight or longitudinal fibers, and believed that the sinewy outer layer wrapped around them served them in place of tendons. (Earnest efforts were made by the early anatomists to